



## Course Articulation Agreement Procedures and Provisions

### **WLD 212 - Gas Metal Arc Welding II**

**3 credits**

Flux cored arc welding with carbon steel and stainless steel using 0.045 flux cored wire following A.W.S. and W.A.B.O. procedure code. Various joints, thicknesses of materials in all positions. Also 1" plate W.A.B.O. unlimited field certification test.

### **STUDENT PROCEDURES**

1. Enroll in the required high school class.
2. Register for Tech Prep dual credit at [www.bigbend.edu/techprep](http://www.bigbend.edu/techprep).
3. Register for the Tech Prep dual credit articulated course during the same academic year the high school class is completed. If a series of courses are involved in the articulation, students register for credit during the same academic year the last course in the series is completed. **Students cannot earn "retroactive credit" for courses taken in previous years.**
4. Earn a grade of 'B' (**3.0**) or better in all courses required under the articulation agreement.
5. Complete all required skills as identified on the competency profile.
6. If an exam or review of completed work is required under the terms of this agreement, students must receive a passing score (determined by college or industry certification) to earn college credit.

### **TEACHER PROCEDURES**

1. Ensure all students receive a copy of the course syllabus outlining information about Tech Prep, the college course competencies, and the process required to earn college credit. See attached "College Tech Prep Notice to Students."
2. Hold students accountable for the same competency standard and course expectations as required by the college-equivalent course (*see competency list attached*).
3. If required for articulation, ensure students are prepared to take industry certification exams, complete a professional portfolio documenting their work, or take a final exam to measure their level of skill and competence in the coursework.
4. Submit final grades for all students registered to earn Tech Prep college credit **within 30 days** of high school course completion.
5. Attend scheduled meetings, workshops or in-service activities that enhance the high school/college partnership and support implementation of the Tech Prep articulated program.

### **ARTICULATION PROVISIONS**

1. Columbia Basin Job Corps instructors may award college Tech Prep credit provided they possess or attain a SMAW welding certification, WABO, AWS, or ASME, in at least one position.
2. Other teachers approved by the college may test and award credit to students or arrange for testing with the BBCC welding instructor.
3. Student must complete WLD 111, WLD 112, WLD 121 and WLD 122.
4. Columbia Basin Job Corps instruction to include minimum 4 hours flux core stainless steel and API code and ASME code pipe welding.
5. Student must receive an A or B grade (minimum 2.9 or better) and complete all competencies.
6. College credits earned under this articulation agreement are at no cost to the student.
7. Columbia Basin Job Corps and/or student is responsible for any fees for WABO, ASME. & AWS welding certification testing.
8. Credits in this course may be applied to degree requirements in the following program:
  - Welding Technology

## **COURSE COMPETENCIES**

### **WLD212 GAS METAL ARC WELDING II**

**1-3 Credits**

1. Perform safety inspection of equipment, work area and accessories
2. Make minor repairs to equipment and accessories
3. Set up a Flux Core Arc Welding station for plain carbon steel
4. Flat Position: .045" E71T-1 inside outside corner passing visual inspection:  $\frac{3}{4}$ " inside and 1" outside
5. Horizontal Position: .045" E71T-1 inside outside corner passing visual inspection
6. Vertical Position: .045" E71T-1 inside outside corner passing visual inspection
7. Overhead Position: .045" E71T-1 inside outside corner passing visual inspection
8. Repeat SA4, SA5, SA6 using CO<sub>2</sub> shielding gas
9. E71T-1, Carbon steel, 1" single bevel - FLAT position passing visual inspection
10. E71T-1, Carbon steel, 1" single bevel - HORIZONTAL position passing visual inspection
11. E71T-1, Carbon steel, 1" single bevel - VERTICAL position passing visual inspection
12. E71T-1, Carbon steel, 1" single bevel - OVERHEAD position passing visual inspection
13. Carbon Steel single V, 22.5degree bevel, FLAT position on 1"x4"x8" HORIZONTAL position
14. Carbon Steel single V, 22.5degree bevel, FLAT position on 1"x4"x8" VERTICAL position
15. Carbon Steel single V, 22.5degree bevel, FLAT position on 1"x4"x8" OVERHEAD position.

#### **Self Shielded Flux Core**

1.  $\frac{3}{4}$ " Fillet weld, FLAT position
2.  $\frac{3}{4}$ " Fillet weld, HORIZONTAL position
3.  $\frac{3}{4}$ " Fillet weld, VERTICAL position
4.  $\frac{3}{4}$ " Fillet weld, OVERHEAD position

#### **Stainless Steel GMAW**

1. 1/8" fillet weld, FLAT position, Visual and size inspection
2. 1/8" fillet weld, HORIZONTAL position, Visual and size inspection
3. 1/8" fillet weld, VERTICAL position, Visual and size inspection
4. 1/8" fillet weld, OVERHEAD position, Visual and size inspection

#### **Aluminum GMAW**

1. Running beads FLAT, HORIZONTAL, VERTICAL, and OVERHEAD
2. Fillet weld on .080" or other approved material FLAT position
3. Fillet weld on .080" or other approved material HORIZONTAL position
4. Fillet weld on .080" or other approved material VERTICAL position
5. Fillet weld on .080" or other approved material OVERHEAD position
6.  $\frac{1}{4}$ " Fillet weld, FLAT position
7.  $\frac{1}{4}$ " Fillet weld, HORIZONTAL position
8.  $\frac{1}{4}$ " Fillet weld, VERTICAL position
9.  $\frac{1}{4}$ " Fillet weld, OVERHEAD position

## College Tech Prep Notice to Students

The high school syllabus MUST include a notice to students indicating the course is Tech Prep approved and articulated with one or more colleges.

The following statement is a **sample** notice. You can use/modify the statement below to include in your syllabus:

### **Example:**

This course is College Tech Prep approved and articulated with Big Bend Community College and the **Welding Technology Program** area. Students, who demonstrate proficiency of the college course competencies with a 'B' (3.0) or better grade, may earn college credit through the Tech Prep dual credit registration process. The college competencies are attached to this syllabus. During the (semester/year) all competencies will be covered in class...some may require additional independent work by the student. To earn college credit students are required to pass a skill check/assessment with the high school instructor.

Students may earn credit for the following college course(s):

WLD122 College Course Number                      1-3 credits

Gas Metal Arc Welding I College Course Name